

Set system time automatically on Linux

Introduction

It is possible to set and synchronize the time in Linux automatically through the systemd service. It's the successor of NTP daemon. In my network the mt-engine01.simmy.ch provides system time. Hence the device can change, I created an DNS alias ntp.simmy.ch. Using this alias allows changes of the time source without problems.

Ubuntu 22.04 LTS

```
nano /etc/systemd/timesyncd.conf
```

This file is part of systemd.

```
#
# systemd is free software; you can redistribute it and/or modify it under the
# terms of the GNU Lesser General Public License as published by the Free
# Software Foundation; either version 2.1 of the License, or (at your option)
# any later version.
#
# Entries in this file show the compile time defaults. Local configuration
# should be created by either modifying this file, or by creating "drop-ins" in
# the timesyncd.conf.d/ subdirectory. The latter is generally recommended.
# Defaults can be restored by simply deleting this file and all drop-ins.
#
# See timesyncd.conf(5) for details.
```

```
[Time]
```

```
NTP=ntp.simmy.ch
```

```
FallbackNTP=0.pool.ntp.org, 1.pool.ntp.org, 2.pool.ntp.org
```

```
#RootDistanceMaxSec=5
#PollIntervalMinSec=32
#PollIntervalMaxSec=2048
```

```
systemctl restart systemd-timesyncd
```

Debian

```
apt install systemd-timesyncd
nano /etc/systemd/timesyncd.conf
```

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# See timesyncd.conf(5) for details.
```

```
[Time]
NTP=ntp.simmy.ch
FallbackNTP=0.pool.ntp.org, 1.pool.ntp.org, 2.pool.ntp.org
#RootDistanceMaxSec=5
#PollIntervalMinSec=32
#PollIntervalMaxSec=2048
```

```
systemctl restart systemd-timesyncd
```

Set the correct timezone

Figure out the timezone:

```
timedatectl list-timezones | grep Europe
```

Set the timezone

```
timedatectl set-timezone Europe/Zurich
```

Useful commands / checks

```
root@iVentoy ~# timedatectl status
      Local time: Sat 2024-01-06 16:21:29 CET
      Universal time: Sat 2024-01-06 15:21:29 UTC
      RTC time: Sat 2024-01-06 15:21:29
      Time zone: Europe/Zurich (CET, +0100)
System clock synchronized: yes
      NTP service: active
      RTC in local TZ: no
root@iVentoy ~#
```

```
root@iVentoy ~# systemctl status systemd-timesyncd
* systemd-timesyncd.service - Network Time Synchronization
   Loaded: loaded (/lib/systemd/system/systemd-timesyncd.service; enabled; preset: enabled)
   Active: active (running) since Sat 2024-01-06 15:51:09 CET; 31min ago
     Docs: man:systemd-timesyncd.service(8)
  Main PID: 3022 (systemd-timesyn)
    Status: "Contacted time server 46.140.15.108:123 (0.debian.pool.ntp.org)."
```

```
   Tasks: 2 (limit: 4650)
  Memory: 1.3M
     CPU: 39ms
  CGroup: /system.slice/systemd-timesyncd.service
          └─3022 /lib/systemd/systemd-timesyncd
```

```
Jan 06 15:51:09 iVentoy systemd[1]: Starting systemd-timesyncd.service - Network Time Synchronization...
Jan 06 15:51:09 iVentoy systemd[1]: Started systemd-timesyncd.service - Network Time Synchronization.
Jan 06 15:51:09 iVentoy systemd-timesyncd[3022]: Contacted time server 46.140.15.108:123
(0.debian.pool.ntp.org).
Jan 06 15:51:09 iVentoy systemd-timesyncd[3022]: Initial clock synchronization to Sat 2024-01-06
```

14:51:09.538088 UTC.

root@iVentoy ~#

date

Useful links

<https://www.digitalocean.com/community/tutorials/how-to-set-up-time-synchronization-on-debian-10>

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